



United States
Department of
Agriculture

Science and
Education
Administration

Agricultural Research
National Program Staff

Beltsville, Maryland
20705

Whitten

April 7, 1981

SUBJECT: Future Screwworm Research Program

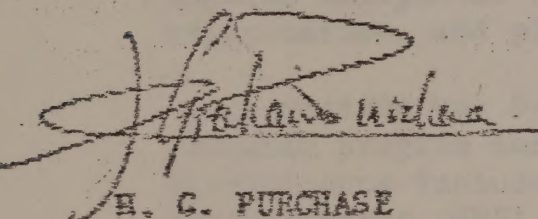
TO: P. J. Fitzgerald
RA, North Central Region

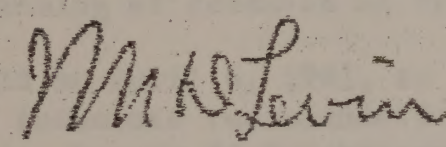
E. L. Kendrick
RA, Southern Region

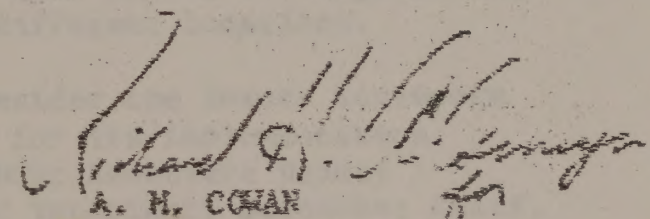
THROUGH: T. J. Army
Deputy Administrator, NPS

With the closing of the Screwworm Research Unit at Mission, Texas, a number of interrelated management decisions must be made that will affect the objectives, organization, and planning of research in support of the screwworm eradication program. Since screwworm research will not only be conducted in two different Regions, but will also cross over different National Research Programs, a meeting was held on April 6, 1981, to identify the various issues associated with the closing of the Screwworm Research Unit at Mission, Texas, and to develop unified NPS recommendations for the future screwworm research program.

Enclosed please find brief discussions of the major issues and our recommendations for their solution. We hope that these recommendations will help you to reach early decisions on the management of this high priority research activity.


H. C. PURCHASE
Acting Chief, LVS


M. D. LEVIN
Chief, CS


A. H. COWAN
Acting Chief, PHST

Enclosure

cc:

T. B. Rimey
R. A. Bram
W. Klassen
R. Handwerk

ARS FACSIMILE MESSAGE	
TO: E. Taylor	PAGES: 7
FROM: Klassen	DATE: 5/15
JKT: NO1	TIME: 2:40

Rec
4/15/81

Future Screwworm Research Program
NPS recommendations related to the closing of the
Screwworm Research Unit
Mission, Texas

Background

APHIS-VS closed their screwworm production plant at Mission, Texas, on January 15, 1981, approximately 7 months prior to the anticipated date. Consequently, it was necessary to send selected screwworm research colonies to the Metabolism and Radiation Research Laboratory, Fargo, North Dakota, and the research facility at Tuxtla Gutierrez, Mexico. Remaining screwworm research colonies were then destroyed.

According to the Five-Year Plan for Screwworm Research prepared in November 1980 (Appendix A; Five-Year Plan), when the screwworm production facility at Mission, Texas, closed, research would be shifted to Tuxtla Gutierrez, Mexico, and Fargo, North Dakota. The early closing of the Mission screwworm production facility has accelerated the implementation of these plans. Furthermore, the Research Leader of the Screwworm Research Unit, Mission, Dr. J. R. Coppedge, has announced his intention to resign from Federal service on April 17, 1981, further complicating the closing of research at Mission and the orderly transfer of personnel. Dr. E. Taylor has been assigned the responsibility of Acting Research Leader to facilitate the closedown of research at Mission.

In order to assure that research support of the eradication effort will continue without interruption during this period of transition and that a strong research capability is maintained in the future, a number of inter-related management decisions must be made that will affect the objectives, organization, and planning of research at the different locations.

A meeting was held on April 6, 1981, to consider the future screwworm research program and formulate recommendations for its implementation. Participants included: Deputy Administrator, NPS; Associate Deputy Administrator, NPS; Acting Chief, Livestock and Veterinary Sciences; Chief, Crop Sciences; National Research Program Leader, Pest Management; and National Research Program Leader, Insects Affecting Man and Animals. Issues which were identified at this meeting are outlined below, followed by the unified recommendations of the National Program Staff.

1. Closing of the Screwworm Research Unit, Mission, Texas

The current status of scientific and technical personnel at Mission, along with recommendations concerning their assignment is as follows:

<u>Name</u>	<u>Position</u>	<u>Status</u>	<u>Recommendation</u>
Coppedge	Res Leader	Will realign 4/17/81	Transfer elot to Tuxtla
Craham	Res Ent	Undergoing processing to Tuxtla (probably in August)	Transfer to Tuxtla as RL
Whitten	Res Ent	Expected to transfer to Fargo around 8/1/81	Transfer to Fargo as Screwworm Project Leader reporting to the laboratory Director; review status in 2 years
McInnis	Res Ent	Undecided	Recommend transfer to Fargo Screwworm Project
Tannahill	Ent	Undergoing processing to Tuxtla (probably in August)	Transfer to Tuxtla
Thompson	Physi Sci Tech	On detail to Weslaco	Transfer to Weslaco
Guzman	Admin Officer	Administration	Area Director consider transfer to Weslaco Central Administration when Mission closes
Garcia	Bio Tech	Screwworm rearing	Area Director and RA's consider transfer to Fargo with funds for screwworm rearing if Garcia agrees
Leal	Bio Tech	Technician	Attempt to locate appro- priate position within Region without screwworm funds
Bazan	Bio Tech	Technician	"
Ramirez	Bio Tech	Technician	"
Gonzalez	Shop Tech	Shop work	"

Transfer of personnel and research activities can probably be completed before the end of FY 81 if decisions are reached in the near future. It will also be necessary to make early arrangements for the transfer of trailers and scientific equipment from Mission to Tuxtla.

2. Research Organization at Fargo

The Metabolism and Radiation Research Laboratory has been conducting screwworm research at Fargo in the Insect Physiology and Biochemistry Research Unit under NRF 20250. First quarter TUFF funds (\$275,000) were provided for renovation and construction of additional space to accommodate increased screwworm research. This renovation and construction should be completed by October 1981. When Drs. Whitten and McInnis are transferred to Fargo, there will be a sizeable increase in screwworm research activity at this laboratory.

There is a strong difference of opinion as to how this increased screwworm research effort should be organized to best support the screwworm eradication program. Although it would seem that such a decision is a local matter, the research at Fargo is intricately involved with the Tuxtla research effort and, together, they form the total research base for a highly successful and prominent eradication program. Three options have been proposed:

- A. Establish Dr. Whitten as a Screwworm Project Leader and the coordinator for all screwworm research at HRRL reporting directly to the Laboratory Director. Research being conducted by Dr. Hamrick would be continued in the Insect Physiology and Biochemistry Research Unit. Other screwworm research being conducted at Fargo would continue in the respective Research Units. This option was selected by the NPS as the most appropriate arrangement with the condition that in 2 years a thorough review be made to determine if readjustments are necessary.
- B. Establish Dr. Whitten as a Research Leader, Screwworm Research Unit, reporting to the Laboratory Director. Dr. Hamrick would be assigned to the Screwworm Research Unit while other screwworm research being conducted at Fargo would continue in the respective Research Units. This Unit would also have the responsibility of orientation of new hires before their assignment to the Tuxtla Screwworm Research Unit. After discussion, the decision was made to forego this option in favor of option A.
- C. Establish an overall screwworm Research Leader at the U.S. Livestock Insects Research Laboratory, Kerrville, Texas. Project Leaders at Tuxtla and Fargo would report administratively to this Research Leader who would coordinate the research at both locations. The NPS strongly opposed this option.

Recommendation: That Dr. Whitten be transferred to Fargo as Screwworm Project Leader reporting directly to the Laboratory Director as outlined in Option A with the addition of an orientation and training responsibility as discussed in Item 5.

3. Chemistry Research Unit

Research and quality control related to swormlure and SWASS had been conducted at Mission by Dr. H. E. Brown (Research Chemist) with the assistance of Mr. P. Thompson (Physical Science Technician). With the transfer of Dr. Brown to Subtropical Products Chemistry Research, Weslaco, no professional chemist was available to supervise the quality control of SWASS production. Mr. Thompson was, therefore, detailed to Weslaco in order that professional guidance of Dr. Brown would be close at hand.

It is planned that SWASS production by AFRIS will be moved to Mexico within the year. A chemist from the Screwworm Commission should be trained in quality control of SWASS so that when production is shifted, AR no longer has responsibility for quality control.

Recommendation: That Raquel Luis of the Screwworm Commission be immediately sent to Weslaco for intensive training in SWASS quality control by P. Thompson under the overall supervision of Dr. Brown.

That P. Thompson be transferred to Weslaco in order to provide chemistry research support to the screwworm program under the professional supervision of Dr. Brown. The research should be targeted for

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swarmalure formulation chemistry, SWASS transport and degradation studies and other attractant studies. It will require 100% of Mr. Thompson's time and less than 10% of Dr. Brown's time for supervision.

4. Administrative Support for Tuxtla Gutierrez Location

Difficulties encountered in providing administrative support for scientists working in Mexico are best overcome by locating an administrative officer at a site near the U.S./Mexico border. Unique problems that are frequently encountered include: international mail delivery complicating communications, salary checks, etc.; permits necessary for sending scientific and other equipment into and out of locations in Mexico; and repair of vehicles and other major equipment.

Recommendation: That the Area Director consider providing suitable administrative support for the Screwworm Research Unit, Tuxtla at a location close to the U.S./Mexico border and that a person with the appropriate experience and expertise, such as Mr. Gorman, be sought.

5. Replacements for Scientists at Tuxtla

With the pending resignation of Dr. Coppedge, the problem of staffing research scientists at the Tuxtla location already exists. Then, in FY 83 it is anticipated that 4 of the 6 professionals will not renew their contracts and will have to be replaced.

Not only is it difficult to attract quality scientists to the Tuxtla location, but after an individual is identified, it requires 6 to 8 months to complete the necessary security clearances, health certifications, and other administrative requirements before an individual can actually move. In the case of research scientists already employed by AR, this does not present a serious problem because they can continue their research activities until the administrative needs are met. In the case of new hires, the most probable source of future scientists in Mexico, these individuals must be actually hired before processing can begin.

Recommendation: That new hires be sent to Fargo where, while being processed, they can begin familiarization with screwworm background literature, begin to learn research procedures with screwworm colonies, and even participate in some screwworm research projects before actually being transferred.

6. Research Support for Central America and the Caribbean

As the screwworm eradication program continues to move southward, the possibility has been raised of continuing the program through the Isthmus of Tehuantepec (the currently planned barrier zone) and eradicating screwworms from Central America with a permanent barrier zone at the Panama/Columbia border. In fact, Dr. Graham has been asked by the Inter-American Institute for Cooperation on Agriculture to participate in a feasibility study of eradication in Central America. Furthermore, requests have been received for technical advice and possible assistance from some countries of the Caribbean, notably Jamaica and Martinique.

Recommendation: That all legitimate requests for research support in other Latin American countries be handled from the Tuxtla location. If the concept of eradication through Central America proves viable, it is recommended that a two scientist research project be established at San Jose, Costa Rica, as a satellite of the Tuxtla location in FY 84.

7. Travel Ceiling

Recognizing the serious impact that limited travel ceilings will have on screwworm research, every effort must be made to assure adequate ceiling for critical research-associated travel in Mexico.

Recommendation: That consideration be given to the assignment of all travel ceiling in Mexico to the Screwworm Research Unit, Tuxtla. Thus, research-related Mexican travel ceiling for both Tuxtla and Fargo would be apportioned on the basis of program priorities by the Research Leader at Tuxtla.

Recommended Screwworm Research Program

A. Location: Tuxtla Gutierrez, Mexico

Research Leader: O. H. Graham

Research Scientists: Peterson, Mackley, Spencer, Tannahill, vacancy

Administrative Technician: Vacancy

Budget: \$500,000 (apportion all travel ceiling for travel in Mexico)

Research Objectives:

1. Investigate the effectiveness of SWASS and bait stations in southern Mexico.
2. Continue to select new screwworm strains for mass rearing and assist APHIS with field evaluations of new strains.
3. Determine reasons for reduced effectiveness of swormlure baited traps in southern Mexico.
4. Investigate the field effectiveness of a narrow genetic base strain of screwworms.
5. Investigate the seasonal incidence of screwworms in the areas of Mexico from Veracruz to Tuxtla and from Mazatlan to Tuxtla.
6. Investigate population dynamics of screwworms in tropical Mexico with emphasis on natural mortality factors.
7. Investigate seasonal incidence and genetic and isozyme patterns of screwworms in Mexico and Central America.
8. Investigate the heritability of fly size and study the effects of size on field effectiveness.
9. Study the population dynamics, genetic patterns, and isozyme patterns of screwworms in southern Mexico and parts of Central America.
10. Determine the most effective and economical way to use swormlure baited traps, SWASS, and bait stations in southern Mexico and Central America.
11. Determine if assortive mating occurs and, if so, its effects on the eradication program.
12. Evaluate the field effectiveness of an all male strain of screwworms.
13. Conduct further research on the effects of larval diets on screwworm growth and development.
14. Investigate the effectiveness of free released sterile flies (chilled fly releases).

B. Location: Fargo, North Dakota

Project Leader reporting to the Laboratory Director and overall screwworm coordinator: J. Whitman

Research Scientists: Malania (Hamneck reports to RL of Insect Physiology and Biochemistry)

Budget: \$330,000 (\$100,000 currently supporting Dr. Hamneck; \$250,000 transferred from Southern Region)

Other Duties: Train new hires for assignment to Tuxtla

Research Objectives:

1. Isolate screwworm attractants from other screwworms, bacteria associated with wounds, animal dung, and certain flowers.
2. Develop and field test an "artificial wound" as a technique for obtaining screwworm egg masses in the field.
3. Investigate accuracy of native male identification techniques and sperm identification techniques.
4. Continue development of males only strain and conduct initial field evaluations.
5. Investigate genetic isoenzyme patterns of screwworms.
6. Determine if assortive mating occurs.

C. Location: Subtropical Products Chemistry Research Unit, Weslaco, Texas

Research Leader: H. E. Brown (10% of time)

Support: P. Thompson, Physical Science Technician (100% of time)

Budget: \$30,000

Other Duties: Train Screwworm Commission chemist in quality control of SWASS

Research Objectives:

1. Develop a long lasting formulation of SWASS.
2. Improve swormlure formulation.

D. Location: Central Administrative Unit, Weslaco, Texas (or other suitable location)

Administrative Officer: Bob Guzman or individual with suitable experience and expertise

Budget: \$50,000

Duties: Provide administrative support for the Tuxtla research location.



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National Program Staff

Beltsville, Maryland
20705

April 27, 1981

SUBJECT: Preliminary Mission Statements and Staffing Charts for
Brownsville, Tuxtla Gutierrez, and Weslaco

TO: E. L. Kendrick
RA, Southern Region

THROUGH: T. J. Army
Deputy Administrator, NPS

H. G. Purchase
Acting Chief, LVS

In reference to Dr. Johnston's memorandum to you on this subject of April 20, there are several aspects of the Screwworm Research Laboratory Staffing Chart which require further consideration. As indicated in the NPS memorandum of April 7 on the future screwworm research program, it is the unified opinion of NPS that screwworm research at Fargo would best be accomplished under the direction of a Project Leader who reports to the Director of the Metabolism and Radiation Research Laboratory. Coordination of screwworm research would be accomplished by ongoing dialogue between the Project Leader at Fargo and the Research Leader at Tuxtla with the assistance of the National Program Staff.

The Staffing Chart proposed by Dr. Johnston reduces the screwworm research effort at Tuxtla by 1 SY. (The vacancy caused by Mr. Tannahill's resignation is not listed.) Because of the continuing need for a strong screwworm research program (cf. my memorandum to Dr. Kinney of April 23) and our anticipation of a \$300,000 increase for screwworm research in FY 82, this reduction in the research effort at Tuxtla does not seem to be justified.

Finally, the Staffing Chart indicates that P. Thompson (Physical Science Technician) will be located at Weslaco, Texas, and report to the Acting Research Leader at Tuxtla. Is there some way to indicate that the technical aspects of Mr. Thompson's work will be under the professional supervision of Dr. Harold Brown who will devote 10% of his time to performing this function?

RALPH A. BRAM
National Research Program Leader
Insects Affecting Man & Animals

cc:

J. R. Johnston

M. H. Frere

✓ O. H. Graham

May 6, 1981

SUBJECT: Future Screwworm Research Program

TO: J. R. Johnston
Area Director
Oklahoma-Texas Area

Since you were here in April we have continued to study the NPS memo of April 7 on this subject and variations or modifications of that program which would enable us to provide maximum support to the Mexican-American eradication program with the resources available. In general we agree with the NPS recommendations but we do recommend that four activities of the Mission laboratory be continued at Mission under the control of the RL at Tuxtla Gtz. for 1 to 2 years (the exact time to depend on the progress of the eradication program).

In part the following activities are vital to a successful research program at Tuxtla but must take place at a location in the U.S. where the best possible communication can be maintained with Commission, APHIS, and SEA personnel in Mexico. Another part of the activities can, because of their nature, be carried out more efficiently at Mission or Weslaco than at Fargo or Tuxtla.

I recommend that the following activities remain in Mission-Weslaco at least until the end of FY 1982:

(1) Chemistry Research

- a. Enough research on SWASS production to assure sustained quality of the 30,000 pounds/week being manufactured at Mission (since April 7 the Commission has decided to continue manufacture of SWASS at Mission indefinitely, probably until the end of the program).

- b. Cooperate with researchers at Tuxtla in attempts to improve Swormlure, especially its performance in the wet tropics.
- c. Cooperate in the development of improved oviposition attractants.
- d. Cooperate with Methods Development at Tuxtla and SEA scientists at Tuxtla and Mission to modify larval and adult diets used for mass production at Tuxtla when needed for efficient procurement by the Commission and to improve egg production.

(2) Screwworm Genetics Research

- a. Respond quickly to emergency requests from the Commission for genetic characterization of screwworms appearing north of the sterile fly release zone, either in the U.S. or northern Mexico. Provide trained personnel to participate in epidemiological investigations of isolated, unexpected infestations; collect living specimens in the field and determine chromosome characteristics, isoenzyme patterns and any other genetic analyses which would assist in tracing the source of the infestation.
- b. Use the staff of trained technicians available at Mission to complete the on-going genetic characterization of screwworm populations from each of the major regions of Mexico.
- c. Cooperate with Methods Development and/or SEA-AR scientists in new strain development (at Tuxtla) and actively participate in the field evaluation of new strains (in southern Mexico or Belize or Guatemala).
- d. Work cooperatively with UT scientists at Austin and examine portions of all materials from the narrow genetic base field test in Chiapas; analyze and summarize the data and publish the results.

- e. Cooperate with scientists at Tuxtla Gtz. and actively participate in the males only field test in Chiapas; examine field collected material in the lab at Mission and analyze all data from the test. Work with Commission personnel to obtain complementary material from other regions of Mexico (such as Oaxaca) and thus obtain maximum amount of corollary information on native populations and their dispersion.
- f. Devise new techniques for detecting natural reproductive isolation even at low levels and, working with scientists at Tuxtla Gtz., use those techniques to search for reproductive isolation in the field.
- g. Utilize the computer terminals at Mission (or Weslaco) to provide data storage, analysis and recall for scientists at Mission and Tuxtla Gtz.
- h. Same as c. above but in Central America.
- i. Develop new and improved techniques for genetic analysis of screwworm, especially the utilization of larval, pupal and adult tissues other than the brain.
- j. Work with Research Entomologist at Mission to improve the methodology for identifying all stages of the screwworm.
- k. Investigate genetic control mechanisms other than radiation-induced sterility (e.g., hybrid sterility, compound chromosomes, translocations) working in the laboratory at Mission and outdoors at Tuxtla Gtz.

(3) Screwworm Biology and Ecology

- a. In cooperation with Research Geneticists and APHIS and Commission personnel, participate in investigations of isolated infestations and/or outbreaks in the U.S. or northern Mexico as outlined in (2) a. above. Organize and supervise field crews who will trap

screwworm adults, collect living larvae and study and analyze the ecological aspects of unexpected, difficult-to-explain infestations.

- b. Coordinate cooperation between Research Chemist at Weslaco and scientists at Tuxtla and actively participate in research on adult and larval nutrition, screwworm fecundity and oviposition attractants. Coordinate exchange of information and data between insect rearing specialists in the U.S. and SEA staff in Tuxtla.
- c. Work with the Research Geneticist in the genetic characterization of screwworm populations in Mexico and Central America; perform isoenzyme analyses and other physiological and morphological procedures to characterize populations, genetic strains, etc.
- d. Actively participate in new strain development at Tuxtla and field evaluation fo new strains.
- e. Cooperate with Research Geneticist in improving the technology for identifying all stages of the screwworm and the separation of screwworms from other blowfly species found in Mexico and Central America (see (2)___ above).

(4) Administrative Functions

Support the research scientists at Tuxtla by working with the administrative technician at Tuxtla to handle personnel actions, T&A's, procurement and many other administrative duties. Must provide proper lead time on all procurement, obtain free entry papers from the Government of Mexico and handle transshipment of all supplies and equipment to Tuxtla Gtz.

Under the scheme outlined above, Mission would, about Aug. 15 become a work site of the Tuxtla laboratory with a location leader, two research scientists, an

administrative technician, a manuscript secretary and approximately 8 research technicians with the number of research technicians slowly being reduced by transfer to other SEA labs as opportunities arose. In case of a reversal in the progress of the program we would be able to respond to the high priority demands which would be directed to the research groups but if, as we all hope, the program reaches the permanent barrier zone in Tehuantepec in December 1982 the number of persons in Mission would be zero.

O. H. GRAHAM

Acting Research Leader

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
SOUTHERN REGION
Screwworm Research
P. O. Box 986
Mission, Texas 78572

May 8, 1981

SUBJECT: Future Screwworm Research Program

TO: J. R. Johnston
Area Director
Oklahoma-Texas Area

Since you were here in April, we have continued to study the NPS memo of April 7 on this subject and variations or modifications of that program which would enable us to use the available resources more efficiently and thus provide maximum support to the Mexican-American eradication program. In general, we agree with the NPS recommendations, but differ in that we recommend that four activities of the Mission laboratory be continued at Mission (under the control of the RL at Tuxtla Gtz.) for 1 to 2 years (the exact time to depend on the progress of the eradication program). Part of the activities listed below are vital to a successful research program at Tuxtla, but must take place at a location in the U.S. where the best possible communication can be maintained with Commission, APHIS, and SEA personnel in Mexico. Another part of the activities can, because of their nature, be carried out more efficiently at Mission or Weslaco than at Fargo or Tuxtla. An even more important consideration is that, by leaving these activities in Mission, SEA-AR retains the capability of quickly providing research support if APHIS reopens the sterile fly production plant at Mission.

I recommend that the following activities remain in Mission-Weslaco at least until the end of FY 1982:

(1) Chemistry Research

- a. Enough research on SWASS production to assure sustained quality of the 30,000 pounds/week being manufactured at Mission (since April 7 the Commission has decided to continue manufacture of SWASS at Mission indefinitely, probably until the end of the program).
- b. Cooperate with researchers at Tuxtla in attempts to improve Swormlure, especially its performance in the wet tropics.
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- d. Cooperate with Methods Development at Tuxtla and SEA scientists at Tuxtla and Mission to modify larval and adult diets used for mass production at Tuxtla when and as needed for economical procurement of diet materials by the Commission or to improve egg production.

(2) Screwworm Genetics Research

- a. Respond quickly to emergency requests from the Commission for genetic characterizations of screwworms appearing north of the sterile fly release zone, either in the U.S. or northern Mexico. Provide trained personnel to participate in epidemiological investigations of isolated, unexpected infestations; collect living specimens in the field, determine chromosome characteristics and isoenzyme patterns, and undertake any other genetic analyses which would assist in tracing the source of the infestation.
- b. Use the staff of trained technicians available at Mission to complete the on-going genetic characterization of screwworm populations from each of the major regions of Mexico (much of the material is already on hand at Mission).
- c. Cooperate with Methods Development and/or SEA-AR scientists in new strain development (at Tuxtla) and actively participate in the field evaluation of new strains (in southern Mexico or Belize or Guatemala).
- d. Work cooperatively with UT scientists at Austin and examine portions of all materials from the narrow genetic base field test in Chiapas; analyze and summarize the data and publish the results.
- e. Cooperate with scientists at Tuxtla Gtz. and actively participate in the males only field test in Chiapas; examine field-collected material in the lab at Mission and analyze all data from the test. Work with Commission personnel to obtain complementary material from other regions of Mexico (such as Oaxaca) and thus obtain a maximum amount of corollary information on native populations and their dispersion.
- f. Devise new techniques for detecting natural reproductive isolation even at low levels and, working with scientists at Tuxtla Gtz., use those techniques to search for reproductive isolation in the field.
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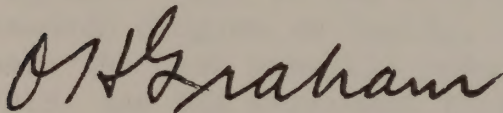
- a. In cooperation with the Research Geneticist and APHIS and Commission personnel, participate in investigations of isolated infestations and/or outbreaks in the U.S. or northern Mexico as outlined in (2) a. above. Organize and supervise field crews who will trap screwworm adults, collect living larvae, and study and analyze the ecological aspects of unexpected, difficult-to-explain infestations.
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actions, T&A's, procurement, passports, processing of new hires for foreign assignments and many other administrative duties. Must provide proper lead time on all procurement, obtain free entry papers from the Government of Mexico, handle transshipment of all supplies and equipment to Tuxtla Gtz. and, prepare a variety of official documents in Spanish. Must be able to conduct business by telephone in Mexico in the Spanish language.

Under the scheme outlined above, Mission would, about Aug. 15, become a work site of the Tuxtla laboratory with a location leader, two research scientists, an administrative technician, a manuscript secretary and approximately 6 research technicians with the number of research technicians slowly being reduced by transfer to other SEA labs as opportunities arose. If new scientists are hired for assignment to Tuxtla, they could be stationed at Mission while being processed for a MODE slot and could work in Mexico on TDY from time to time, thus gaining valuable experience. In case of a reversal in the progress of the program we would be able to respond to the high priority demands which would be directed to the research groups, but if, as we all hope, the program reaches the permanent barrier zone in Tehuantepec in December 1982 the research program could then be redirected into Central America.



O. H. GRAHAM
Acting Research Leader

cc: E. A. Taylor, ALL, Mission
M. E. Meadows, Co-Dir., Mexico City
R. A. Bran, NPS, Beltsville

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
SOUTHERN REGION
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(1) Chemistry Research

- a. Enough research on SWASS production to assure sustained quality of the 30,000 pounds/week being manufactured at Mission (since April 7 the Commission has decided to continue manufacture of SWASS at Mission indefinitely, probably until the end of the program).
- b. Cooperate with researchers at Tuxtla in attempts to improve Swormlure, especially its performance in the wet tropics.
- c. Cooperate in the development of improved oviposition attractants.

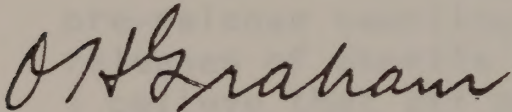
- d. Cooperate with Methods Development at Tuxtla and SEA scientists at Tuxtla and Mission to modify larval and adult diets used for mass production at Tuxtla when and as needed for economical procurement of diet materials by the Commission or to improve egg production.

(2) Screwworm Genetics Research

- a. Respond quickly to emergency requests from the Commission for genetic characterizations of screwworms appearing north of the sterile fly release zone, either in the U.S. or northern Mexico. Provide trained personnel to participate in epidemiological investigations of isolated, unexpected infestations; collect living specimens in the field, determine chromosome characteristics and isoenzyme patterns, and undertake any other genetic analyses which would assist in tracing the source of the infestation.
- b. Use the staff of trained technicians available at Mission to complete the on-going genetic characterization of screwworm populations from each of the major regions of Mexico (much of the material is already on hand at Mission).
- c. Cooperate with Methods Development and/or SEA-AR scientists in new strain development (at Tuxtla) and actively participate in the field evaluation of new strains (in southern Mexico or Belize or Guatemala).
- d. Work cooperatively with UT scientists at Austin and examine portions of all materials from the narrow genetic base field test in Chiapas; analyze and summarize the data and publish the results.
- e. Cooperate with scientists at Tuxtla Gtz. and actively participate in the males only field test in Chiapas; examine field-collected material in the lab at Mission and analyze all data from the test. Work with Commission personnel to obtain complementary material from other regions of Mexico (such as Oaxaca) and thus obtain a maximum amount of corollary information on native populations and their dispersion.
- f. Devise new techniques for detecting natural reproductive isolation even at low levels and, working with scientists at Tuxtla Gtz., use those techniques to search for reproductive isolation in the field.
- g. Utilize the computer terminals at Mission (or Weslaco) to provide data storage, analysis and recall for scientists at Mission and Tuxtla Gtz.

actions, T&A's, procurement, passports, processing of new hires for foreign assignments and many other administrative duties. Must provide proper lead time on all procurement, obtain free entry papers from the Government of Mexico, handle transshipment of all supplies and equipment to Tuxtla Gtz. and prepare a variety of official documents in Spanish. Must be able to conduct business by telephone in Mexico in the Spanish language.

Under the scheme outlined above, Mission would, about Aug. 15, become a work site of the Tuxtla laboratory with a location leader, two research scientists, an administrative technician, a manuscript secretary and approximately 6 research technicians with the number of research technicians slowly being reduced by transfer to other SEA labs as opportunities arose. If new scientists are hired for assignment to Tuxtla, they could be stationed at Mission while being processed for a MODE slot and could work in Mexico on TDY from time to time, thus gaining valuable experience. In case of a reversal in the progress of the program we would be able to respond to the high priority demands which would be directed to the research groups, but if, as we all hope, the program reaches the permanent barrier zone in Tehuantepec in December 1982 the research program could then be redirected into Central America.



O. H. GRAHAM
Acting Research Leader

cc: E. A. Taylor, ALL, Mission
M. E. Meadows, Co-Dir., Mexico City
R. A. Bran, NPS, Beltsville

Development at Tuxtla is progressing well. The insects for release are being prepared. Thus, I feel that the program is successfully initiated and that July 15 as a target date for the establishment of a viable program is realistic. Building construction and equipment procurement in Tuxtla will move forward. In addition, the departure in June of Dr. [redacted] will be a void in the research effort. A [redacted] will move to Tuxtla and [redacted] will move to [redacted]. I would appreciate your comments on this.


O. H. Graham
Research Entomologist

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
SOUTHERN REGION

Screwworm Research Laboratory
Mission, TX 78572

May 20, 1981

Subject: Transfer of Duty Stations

To: Dr. J. R. Johnston, Area Director

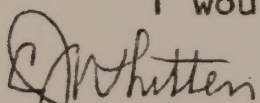
Through: Dr. O. H. Graham, Acting Research Leader

In earlier discussions James Coppedge, Leo LaChance, and myself had mutually agreed that July 15 would be a tentative date for my transfer from Mission to Fargo. At that time James and I had agreed that such a date would be contingent upon the initiation of the field test in southern Mexico that is being done as a cooperative effort of SEA, the Joint Mexican-American Screwworm Commission, and the University of Texas.

The field test was initiated April 23 to begin the pre-release sampling of the native populations. The initial releases of sterile flies have been scheduled for June 2. I believe that all provisions with regard to personnel or equipment and mechanisms with regard to methods and techniques for the field test have been established. Dr. John Spencer (at Tuxtla) who has experience from the Sinaloa and Veracruz evaluations is supervising the field operations. Dr. Don McInnis has received increased technical support and is supervising laboratory operations in Mission. Methods and Development at Tuxtla is responsible for the production of the insects for release.

Thus, I feel that the Arriaga Field Test has been successfully initiated and would like to continue considering July 15 as a target date for my transfer. I believe that there is a genuine need for my presence in Fargo to begin the establishment of a viable screwworm research group. Building construction and modification for screwworm research in Fargo will soon be underway. In addition, the expected departure in June of Dr. Sam Rawlins will leave a supervisory void in the research effort for a genetic sexing system that was moved to Fargo when insect rearing was halted in Mission.

I would appreciate your comments on this subject.



C. J. Whitten
Research Entomologist

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
SOUTHERN REGION

Screwworm Research
P. O. Box 986
Mission, Texas 78572

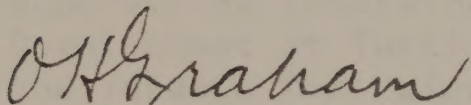
May 26, 1981

SUBJECT: Transfer of C. J. Whitten to Fargo

TO: Dr. J. R. Johnston
Area Director
Oklahoma-Texas Area
USDA, SEA, AR
P. O. Box EC
College Station, Texas 77840

The enclosed copy of a memorandum from Dr. Whitten on this subject is self-explanatory. Dr. Whitten can judge the impact of his transfer on both programs better than anyone else and I recommend that you approve July 15 as the effective date.

Dr. Rawlins tells me that he will be able to make only one more trip to Fargo and that he definitely expects to resign from his employment here soon after his return from that trip. These events emphasize the importance of converting Judy Walker to Federal employment as soon as possible. She has had a key role in the movement of screwworm strains to Fargo and their successful maintenance there. These strains are the end product of three years of research and if they should be lost our considerable investment in the research would also be lost.



O. H. GRAHAM
Acting Research Leader

cc:

L. E. LaChance
C. J. Whitten ✓
E. A. Taylor

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
SOUTHERN REGION

Screwworm Research Laboratory
Mission, TX 78572

May 20, 1981

Subject: Transfer of Duty Stations

To: Dr. J. R. Johnston, Area Director

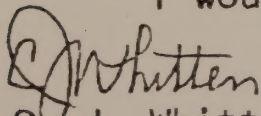
Through: Dr. O. H. Graham, Acting Research Leader

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I would appreciate your comments on this subject.



C. J. Whitten
Research Entomologist

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
SOUTHERN REGION
OKLAHOMA-TEXAS AREA
F & B ROAD
P.O. BOX EC
COLLEGE STATION, TEXAS 77840

May 28, 1981

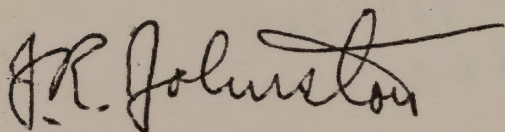
SUBJECT: Transfer of C. J. Whitten to Fargo, ND

TO: E. L. Kendrick
Regional Administrator
New Orleans, LA

We are enclosing a copy of Hugh Graham's May 26, 1981 memorandum on the subject. We want to assist in this transfer in any way possible.

If Dr. Whitten is transferred to the North Central Region and report to Dr. LeChance, then the essential redescription of duties, SF 52, and transfer papers should be initiated by the North Central Region. On the other hand, if Dr. Whitten is to be responsible to Dr. Graham, at the Mission-Tuxtla locations, with duty station at Fargo, ND, then it should be up to the Southern Region to handle the paperwork.

We believe you and Paul Fitzgerald need to work out the funds and personnel transfer for this change in the Screwworm Research Program. After which, the paperwork for essential changes should flow smoothly.



J. R. JOHNSTON
Area Director

cc:
P. Fitzgerald
C. D. Schmidt
L. LeChance
H. G. Purchase
W. Klassen
O. H. Graham
→ C. J. Whitten
E. A. Taylor

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Research
& Insect Cont

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address

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Business

82 325,000

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Dept Biol

Ent Res

All travel
from Mission
budget until
Oct 81

Project
Managers

& TA

Contact Person

Aghia, Paraskevi
Attiki

Greece



United States
Department of
Agriculture

Agricultural
Research
Service

National
Program
Staff

Beltsville, Maryland
20705

GRE

JVS

EDG

JEH

June 14, 1988

SUBJECT: ARS Screwworm Research Program - Guidelines for Staffing and Leadership Assignments

TO: F. P. Horn
Director, SPA

AREA DIRECTOR
ARS, FT. COLLINS

G. R. Evans
Director, NPA

JUN 20 1988

THROUGH: D. B. Laster
Associate Deputy Administrator

FROM: R. A. Bram
NPL, Insects Affecting Man & Animals and Parasitology

Enclosed please find the guidelines for staffing and leadership assignments in the ARS Screwworm Research Program which we jointly developed. This plan, although flexible in timing, is realistic and will accomplish our objective in maintaining strong leadership and technical expertise in research supporting the screwworm eradication program.

cc:

T. J. Army
R. R. Oltjen

Enclosure

ARS SCREWORM RESEARCH PROGRAM
Guidelines for Staffing and Leadership Assignments

Chronological Summary

<u>Approximate Date</u>	<u>Action</u>
October 1988 - November 1988	Screwworm Attraction Workshop
October 1988 - January 1989	Transfer Peterson from Fargo to APHIS-VS, Ames
January 1989 - June 1989	Reassign Mangan from Tuxtla Gutierrez to Subtropical Fruit Insects Research Unit, Weslaco as RL
January 1989 - June 1989	Reassign Whitten from Fargo to Screwworm Research Unit, Tuxtla Gutierrez as RL
January 1989 - June 1989	Hire physiologist/chemist for attraction research to fill Whitten vacancy
January 1989 - June 1989	Reassign Taylor from Tuxtla Gutierrez to Fargo to fill Peterson vacancy
January 1989 - June 1989	Hire term appointment population geneticist to fill Taylor vacancy in Tuxtla Gutierrez

Background

The fundamental mission of the ARS screwworm research program is to conduct research in support of one of the most successful animal health programs ever undertaken by the U.S. Department of Agriculture. Through the Comision Mexico-Americana Para La Erradicacion del Gusano Barrenador del Ganado (Screwworm Commission), APHIS is implementing the eradication program in southern Mexico, and negotiations are currently underway to eradicate screwworms from Belize and Guatemala. Long-term plans include screwworm eradication from all of Central America with an eventual production plant and research facility in Panama. ARS has committed the following resources to screwworm research in support of eradication.

<u>Location</u>	<u>SY's</u>	<u>\$</u>
Tuxtla Gutierrez, Mexico (includes 2 SY's in San Jose, Costa Rica)	7.0	907,086
Fargo, North Dakota	3.0	438,237
TOTAL	10.0	\$1,345,323

Current Staffing

Both management units at Tuxtla Gutierrez, Mexico, and Fargo, North Dakota, are currently at their full complement of SY's. However, since Tuxtla Gutierrez and its satellite laboratory at San Jose, Costa Rica are overseas locations, scientists there are generally limited by Agency policy to 6 continuous years in one assignment. After returning to the United States for a tour of duty, scientists may then be reassigned overseas for another 6-year (or less) tour. Thus, the current status of scientists at Tuxtla Gutierrez and their mandatory repatriation dates are as follows:

<u>Name</u>	<u>Grade</u>	<u>Maximum Years Remaining</u>	<u>Mandatory Repatriation Date</u>
Mangan, R. C. (Res Ldr)	GM-13	1.0	June 1989
Taylor, D. B.	GS-12	1.0	September 1989
Thomas, D. B.	GS-12	3.5	January 1992
Friese, D. D. (TFT)	GS-12	4.0	March 1992
Brewer, F. D.	GS-12	6.0	March 1994
Stanford, P. T. (Admin Offi)	GS-09	3.5	January 1992
Parker, F. D. (Costa Rica)	GS-14	6.0	March 1994
Welch, J. B. (Costa Rica)	GS-12	3.0	June 1991

Screwworm scientists at Fargo, a component of the Insect Biochemistry and Molecular Genetics Research Unit, are as follows:

<u>Name</u>	<u>Grade</u>
Whitten, C. J. (Proj Ldr)	GM-13
Peterson, R.	GS-12
Hammack, L.	GS-12

Leadership

Within a year, it will be necessary to designate a new Research Leader for the Tuxtla Gutierrez Unit. Dr. Mangan has been extremely effective during his tenure as Research Leader. He has directed the research program back to a sound scientific foundation while remaining responsive to the anticipated needs of the eradication program. If possible, he should be repatriated to a leadership position.

Dr. Whitten has served as project leader both during the initial establishment of the ARS laboratory at Tuxtla Gutierrez in 1977 and also in the establishment of the screwworm research project at Fargo. In addition, he has served as de facto national technical advisor for screwworm research since 1986. In these roles, Dr. Whitten has demonstrated effective leadership capabilities and is appropriately recognized within the screwworm research and operational community.

Since there is a need for a Research Leader of the Subtropical Fruit Insects Research Unit, Weslaco, Texas, Dr. Mangan could fill this position extremely well. He has an academic background in fruit fly population genetics and would be effective in interacting with industry and regulatory authorities. Informal conversations indicate that he would be available for such an assignment anywhere from January 1989 through June 1989.

As a replacement for Dr. Mangan, Dr. Whitten would be an ideal appointment as Research Leader at Tuxtla Gutierrez. He has served at the location previously and has maintained scientific and operational contacts with all relevant individuals and organizations. Informal conversations have confirmed that he, too, could be available for assignment anywhere from October 1988 through June 1989.

Staff Assignments

The vacancy created by reassignment of Dr. Whitten from Fargo to Tuxtla Gutierrez presents an opportunity to strengthen screwworm attraction research through the addition of an Insect Physiologist/Biochemist. The precise specialty required and the nature of the appointment will be determined following the completion of a workshop on screwworm attraction (see below).

Dr. Peterson at the Fargo location has indicated a particular interest in a service position with APHIS-VS at Ames, Iowa, when it becomes available. APHIS-VS is aware of Dr. Peterson's desire and is very interested in the possibility of an interagency reassignment. This option is being actively explored at the National Veterinary Services Diagnostic Laboratory and could materialize within 90 days at the earliest. Dr. Peterson is scheduled to present a seminar to the leadership at Ames, Iowa, in early July.

The vacancy created by Dr. Peterson's reassignment to APHIS-VS, Ames could, therefore, be filled as a repatriation assignment for Dr. Taylor to pursue fundamental investigations of screwworm cytogenetics. During this assignment, Dr. Taylor would have an opportunity to upgrade his scientific skills while providing information of value to the development of new strains and of understanding "strain deterioration." Informal conversations indicate that Dr. Taylor would be most receptive to such an assignment and, after an appropriate period, return to screwworm research in Mexico or Central America.

In order to satisfy the need for a research geneticist in close proximity to the operational program, a term appointment population geneticist should be hired to fill the vacancy created by the reassignment of Dr. Taylor to Fargo. Thus, an individual could be selected who would immediately contribute to the program strategies of quality control, release, and evaluation.

Screwworm Attraction Workshop

Research on screwworm attraction could yield information of significant value to the operational program as a supplementary means of population reduction as well as a surveillance tool. For the last year or two, there has been a lack of notable progress despite diligent efforts in the laboratory and in the field. The time, therefore, seems propitious for a workshop to identify future avenues of research and the necessary expertise to achieve results. NPS will organize such a workshop, probably at Fargo, early in FY 1989. Results of this workshop will be used to identify the necessary expertise for the Fargo appointment noted above.

